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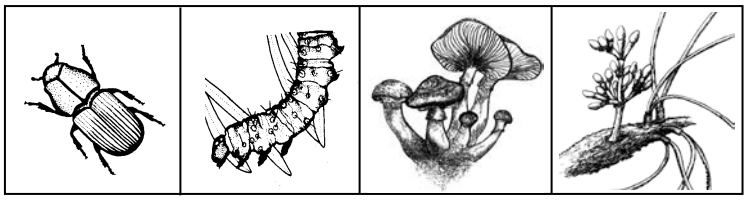

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Monitoring Green Alder Sawfly, a Non-Native Insect, in Idaho and Montana

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Report Highlights

- Green alder sawfly was found in Idaho in 2011 and 2012, but not in Montana.
- No significant defoliation from green alder sawfly was noted at any trapping sites.
- Monitoring will continue in 2013 in Idaho and Montana.

Introduction

The objective of this project was to determine if the nonnative, green alder sawfly (GAS) *Monsoma pulveratum* (Retzius) is present in Idaho and Montana. This project is part of a larger collaborative effort to monitor the incidence and spread of GAS in the northwestern United States. Observations were also made for potential defoliation caused by GAS.

Background

GAS is native to Europe, northern Africa and the Near East. The larva is bright green and about 15-18 mm long when full grown (fig. 1). Adults are about 7-10 mm in length, have a black head, thorax and abdomen with white margins on the

Figure 1. Green alder sawfly larva. (Photo by R-10 FHP)

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segments. Legs are reddish-brown or black (fig. 2).

Fig. 2 Green alder sawfly adult. (Photo by R-10 FHP)

GAS was positively identified in Alaska in 2009 (Kruse *et al.* 2010). In 2010, GAS adults were found in Washington, Oregon, and British Columbia (Oester & Shaw 2011).
Its preferred host is European black alder (*Alnus glutinosa*), but it feeds on a variety of other species of alder as well. In Alaska, GAS and other sawfly feeding, combined with canker fungi have caused widespread thin-leaf alder (*Alnus tenuifolia*) mortality (fig. 3). The loss of alder may pose a threat to riparian areas that rely on alder for stream shade and nitrogen fixation for soil nutrition. Alder stands in Alaska with widespread mortality have shown little signs of recovery.

Figure 3. Alder sawfly damage in Alaska. (Photo by R-10 FHP)

Methods

Yellow panel traps (18 x 14 cm) coated with a pressure sensitive adhesive (AlphaScents, West Linn, OR), were hung from alder branches with a twist tie approximately six feet above the ground (fig. 4). Two traps were placed at each site and located at least 20 feet but no more than 60 feet apart. In 2011, traps were placed at six sites in Idaho and three sites in Montana. In 2012, traps were placed at seven sites in Idaho and four sites in Montana (fig. 5). Idaho sites were located on the Idaho Panhandle National Forest and on private land south of Coeur d'Alene, Idaho. The Montana sites were in the western part of the state on the Kootenai National Forest. GPS coordinates, elevation, and alder species were recorded for each trapping site (Table 1).

Sites were selected in alder stands that were more than 0.5 acres in size and easily accessible for quick collection. Traps were placed in April of both years and monitored monthly through the end of August or mid-September. At monthly intervals, the existing trap was replaced with a new trap. The retrieved traps were brought back to the lab and examined for the presence of any apparent sawfly species. Traps with sawflies were shipped to Chris Looney, Washington State Department of Agriculture, for positive identification of GAS.

Results

GAS adults were collected from traps hung in Idaho in 2011 and 2012. In 2011, three GAS were caught at 2 sites. In 2012, 16 GAS were caught at three sites; two sites caught GAS both years (Table 1). This

Figure 4. Yellow sticky trap used to catch green alder sawflies.

is the first report of this insect in Idaho. Voucher specimens were deposited in the William F. Barr Entomological Museum at the University of Idaho. Although hundreds of other native sawflies were caught on the traps, no other exotic sawflies were found.

No adult GAS were collected in Montana either year. No significant defoliation characteristic of sawfly feeding was noted at any trapping sites in Idaho or Montana.

The detection survey will continue in 2013. Because GAS trap catches increased in Idaho, we will add additional sites and monitor defoliation in both states.

GAS flies early in the season and was only caught in April or May. Therefore in 2013, we will only trap for GAS between April and June.

References

Kruse, J.J.; Zogas, K.; Hard, J.; Lisuzzo, N. 2010. New Pest in Alaska and Washington, the Green Alder Sawfly, Monsoma pulveratum (Retzius). USDA Forest Service, Alaska Region, Pest Alert R10-PR-022. 2 pages.

Oester, P.; Shaw D. 2011. Green Alder Sawfly-a new invasive. Oregon State University Extension Service. Tree Topics. June 1, 2011.

Acknowledgements

Doug Wulff and Cory Bancroft assisted in retrieving traps in Idaho. Doug also produced the map. Chris Hayes assisted with preliminary sawfly identification.

Table 1. Trapping sites for green alder sawfly in Idaho and Montana, 2011-2012.

State	Site Name	Alder Species	GPS Location		Elevation (feet)	Number of GAS Caught	
			Latitude	Longitude		2011	2012
Idaho	Bumble Bee	Thin-leaf	47.6333400	-116.28418	2244	0	0
	Marie Creek	Thin-leaf	47.6767000	-116.58556	2434	0	0
	Lost Lake	Sitka	48.1935800	-116.38467	2404	2	12
	Rock Creek	Thin-leaf	48.8499600	-116.29377	3009	1	1
	Bear Paw	Thin-leaf	48.327744	-117.024029	2552	0	0
	Lamb Creek	Thin-leaf	48.526242	-116.944389	2580	0	0
	Stinson Creek	Thin-leaf	47.5347800	-116.85973	2357	--	3
Montana	Dorr Skeel	Thin-leaf	48.26893	-115.85457	2347	0	0
	Bad Medicine	Thin-leaf	48.22042	-115.85399	2366	0	0
	Bull River	Thin-leaf	48.03047	-115.84367	2198	0	0
	Yaak Falls	Thin-leaf	48.65002	-115.88592	2439	--	0

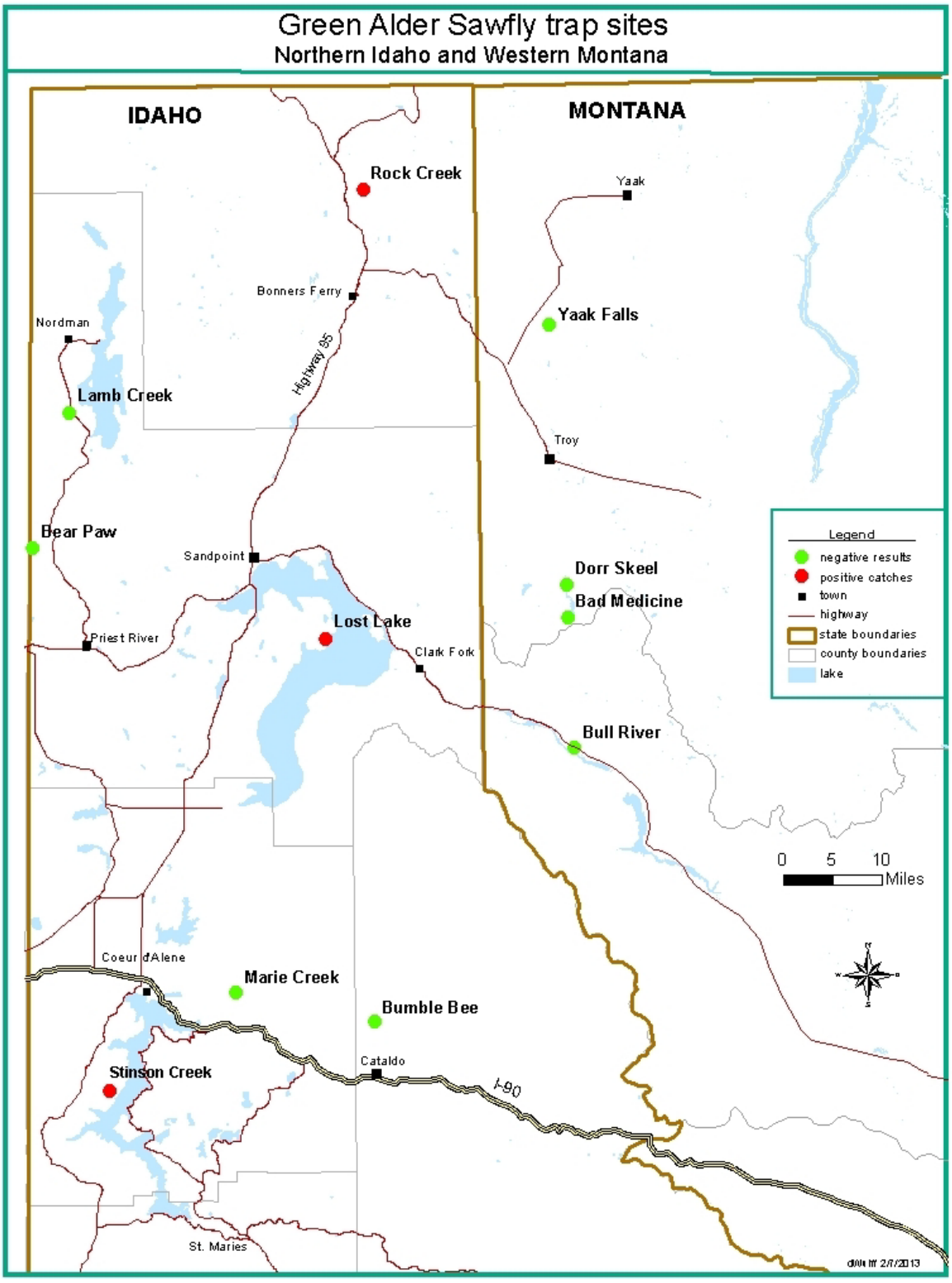

Figure 5. Green alder sawfly (GAS) trap sites in Idaho and Montana 2011-2012. Trap sites with positive catches are shown in red; trap sites with no GAS caught are shown in green.